

BULLETIN

FALL 2005

WWW.MICHIGAN.GOV/BCCFS



GREEN SWORN IN AS ICC PRESIDENT, LAYS OUT VISION FOR TERM

By Penny Davis

Office of Administrative Services

On Wednesday, September 28, the members of the [International Code Council](http://www.icc-inc.org) (ICC), during their annual conference in Detroit, voted Henry L. Green, Director of the Bureau of Construction Codes and Fire Safety (BCCFS) as the next president of the organization. Green's term runs through September 2006.

"This year holds exciting promise for this organization, and I believe our leadership team is capable of leading this organization to an even greater level of success and providing the guidance that you demand," said Green. "To achieve success you must have an understanding how earlier successes have been achieved, learn from the previous experiences and apply those lessons in future activities to achieve the greatest measure of success."

During his acceptance speech, Green laid out his vision for his term, which includes continued improvements in services, recognition and professionalism as an organization and as leaders in communities and jurisdictions. He also highlighted several initiatives he hopes to accomplish during his term:

1. Improvements in on-line training and education programs.
2. Have the Major Jurisdictions Committee, which has recently been reinvigorated, be considered the preeminent group to help larger communities to meet changing demands in the use of existing buildings, developments and unique structures. Under the leadership of Ron Lynn and other organizational leaders, the committee will become a respected resource for organizations and communities throughout this country and the world.
3. Enhance and improve the organization's public education and awareness outreach.
4. Improve strategic partnerships by engaging them in the processes and the development of strategies that will improve the application of codes and standards and result in greater safety in the built environment.
5. Develop interoperable platforms that allow for the electronic exchange of plans and data. There is significant work being conducted today that will advance skills and abilities in both the development of buildings and structures but also in the response to emergencies.



ICC Past President Frank P. Hodge Jr. presents Henry L. Green with the gavel as he begins his term as the ICC President.

6. Achieve a higher level of engagement of the organization's 40,000-plus members. The ICC has been successful in providing video streaming of its code process, but it needs to go to the next level and determine how to safely and accurately allow its members to vote remotely on the development of the codes.

7. Improve the organization's leadership skills, develop a comprehensive international plan that looks to achieve improved safety levels for US citizens traveling abroad, and develop a strategic plan for the future of this organization's leadership.

8. Establish a resource office to provide assistance to the code officials and municipalities in the rebuilding of the communities in the Gulf Region. The organization will staff the office to assist in the understanding and application of the codes, providing the services necessary to rebuild New Orleans and the entire region.

9. Appoint a committee to explore the issues surrounding the governance of the organization, seeking input from the members to develop an issue paper that outlines the committee's findings and sets forth recommendations out of these findings.

"I pledge to you that I will work tirelessly to continue this level of recognition and gain additional respect for you, the members of this organization, in the work that you do every day," concluded Green.

NEWS FROM INSIDE THE BUREAU

LEHMAN PRESIDENT OF CODE OFFICIALS CONFERENCE OF MICHIGAN

Larry Lehman, Chief of the Building Division, Bureau of Construction Codes and Fire Safety was elected President of the Code Officials Conference of Michigan (COCM) at its annual Fall Conference on September 26, 2005.

Larry is the first building inspector employed by the state of Michigan to be nominated to the COCM Board, which is the largest state organization representing the building code enforcement profession in the state.

COCM provides their membership with four educational opportunities each year to increase professionalism, award scholarships to individuals in construction related fields at colleges and universities, and represent their membership in a wide-range of code-related issues.



Henry L. Green, BCCFS Director and President of ICC, swears in Larry Lehman as President of the Code Officials Conference of Michigan.

BCCFS ENCOURAGES PUBLIC AND PROFESSIONALS TO CHECK PRODUCT RECALLS

The U.S. Consumer Product Safety Commission (CPSC) is charged with protecting the public from unreasonable risks of serious injury or death from more than 15,000 types of consumer products. Professionals and consumers can find information on over 4,000 product recalls and recall alerts using the various searches on its web site located at: <http://www.cpsc.gov/cpsc/pub/prerel/prerel.html>.

Recent recalls related to BCCFS issues include a recall of Holiday Time™ Candle Gift Sets sold at Wal-Mart stores nationwide, 75-Gallon Propane Gas Water Heaters manufactured by A.O. Smith Water Products Co., of Ashland City, Tennessee, and Greenheck Sidewall, Rooftop and Centrifugal Inline Ventilation Units distributed by Greenheck Fan Corp., of Schofield, Wisconsin.

Check the CPSC web site regularly for the most recent recalls.

AN FYI FROM HANK LUKS, PRESIDENT BURGLAR AND FIRE ALARM ASSOC. OF MI.

New technology for smoke detectors, of which some electrical inspectors and fire marshals may not yet be aware, makes it easier for fire alarm contractors to comply with codes established for both residential and commercial structures. There are now several smoke detector and burglar alarm systems manufactured by companies that accomplish those objectives. In addition, the new systems provide additional protection to the consumer because they are supervised much like commercial systems. These same smoke detectors are also UL approved for commercial use. Another advantage is that the smoke detectors also contain a heat detector.

Electrical inspectors have not permitted low-voltage smoke detectors in residential structures because it was understood that the system was monitored by a central station, and when a homeowner did not pay their monitoring fee the fire alarm system would not be functional. Today, these systems do not allow the fire alarm portion of the system to become inactive. Even if a central station no longer monitors the system, the system would continue to function as a local warning sound system within the home.

These systems operate from 12 to 24 volts DC, with a primary AC source and a 4 AMP re-chargeable battery back up. If the system requires 7 AMP, batteries are commonly used.

Consumers should have the option to have their smoke alarms monitored. The members of our association and fire alarm contractors are fully aware that they cannot install smoke alarm equipment and fire-related devices with only a "security alarm agency" contractor license.

BOILER DIVISION

SERVICING & TESTING OF BOILER CONTROLS & SAFETY DEVICES

**By Robert Aben, Chief
Boiler Division**

In 1995, document CSD-1 of the American Society of Mechanical Engineers (ASME) Code, which addresses requirements for the assembly, installation, maintenance, operation and testing of controls and safety devices for automatically fired boilers, was adopted by R 408.4027 under the [Boiler Act of 1965 \(PA 290\)](#). The purpose of this adoption was to mitigate boiler failures resulting from improper operation of controls and safety devices by requiring periodic testing and maintenance. The administrative rule states that personnel who conduct the testing do not have to be licensed under Act 290. The theory was that servicing of gas-fired appliances required licensing under the [Forbes Mechanical Contractors Act \(1984 PA 192\)](#); therefore, qualification of service personnel would be addressed. Assembly and installation, also addressed by CSD-1, were not of concern because licensed boiler installers typically do these activities at the time of the boiler installation.

After 10 years of implementation and inspections, the Boiler

Division has discovered licensing under the Forbes Mechanical Contractors Act alone is not sufficient for testing and maintenance on boilers outside of residential structures. The main difficulty here is the disconnect between the knowledge needed for licensing under the Michigan Mechanical Code and the requirements of the CSD-1 document adopted under the Michigan Boiler Rules. The Boiler Division has determined that this work requires skills and knowledge from both a boiler installer and a mechanical contractor. This issue is being addressed during rule promulgation to update the Michigan Boiler Rules. The new rules will require a company wishing to conduct testing and maintenance of controls and safety devices of boilers regulated under 1965 Act 290 to employ an individual with the appropriate boiler installer license and an individual with a heating service license, either limited or unlimited, as appropriate for the boiler being tested.

Questions may be directed to the Boiler Division at (517) 241-9334.

BUILDING DIVISION

SCHOOL CONSTRUCTION ISSUES

**By Larry Lehman, Chief
Building Division**

A number of school projects (kindergarten through 12th grade) this year have either been delayed in opening or not allowed to open due, to a number of different issues after applying for construction code approval. Most notable reasons are when permits have been secured from local enforcing agencies in any or all of the code disciplines without a delegation of authority being jointly applied for by both the enforcing agency and the school district in accordance with [Section 1b\(5\) of 1937 PA 306](#). The state of Michigan, Bureau of Construction Codes and Fire Safety has responsibility for construction code enforcement of school buildings including fire safety unless the local enforcing agency has been approved by the bureau for delegation of authority. This approval does not include fire safety inspections, whose authority cannot be delegated, other than the written attestation granted to the City of Detroit on August 11, 1969 by the State Fire Safety Board. The Request for Delegation of School Inspection Authority to a Local Unit of Government Enforcing Agency Application and a list

of schools which have been granted authority is available on the bureau web site at www.michigan.gov/bccfs.

In cases where the local enforcing agency has issued permits and performed inspections without a legal approval for delegation of authority, the bureau requires plans to be resubmitted to the Plan Review Division for any and all required reviews. The bureau also requires the local enforcing agency to provide inspection records and special inspection records for review. Permits and inspection approvals need to ultimately be secured from the bureau to legally grant occupancy.

Other notable concerns include when school administrators, design professionals, and contractors assume they can convert existing

day care or Sunday school facilities into a K-12 school without seeking the approval of the bureau or the Department of Education. While some codes may not require these facilities to obtain a group or use change, any change in the application of the requirements of the school rules must be reviewed and approved by the bureau.

Questions may be directed to the Building Division at (517) 241-9317.



ELECTRICAL DIVISION

KITCHENS IN FAST FOOD RESTAURANTS

By Virgil Monroe, Chief
Electrical Division

The Electrical Division has received a number of inquiries from contractors and engineers regarding what constitutes a kitchen in a fast food restaurant. The 2002 Michigan Electrical Code, Article 210.8(B)(3) requires ground-fault circuit-interrupter protection for personnel on all 125-volt, single-phase, 15- and 20-ampere receptacles installed in non-dwelling kitchens. The applicable question is whether the kitchen includes the counter area immediately behind the front serving counter of a fast food restaurant.

The code does not define "kitchen." Webster's New World Dictionary defines kitchen as "a room or place or the equipment for the preparation and cooking of food." Using this definition, this back counter would be classified as part of the kitchen if food is prepared or cooked, or if equipment is installed on or in the counter, for the preparation or cooking of food. If this counter is classified as a kitchen, all 125-volt, single-phase, 15- and 20-ampere receptacles would be required to be protected by a ground-fault circuit-interrupter.

Questions may be directed to the Electrical Division at (517) 241-9320.

ELEVATOR SAFETY DIVISION

ELEVATOR RULES BECOME EFFECTIVE

DECEMBER 12, 2005

By Calvin W. Rogler, Chief
Elevator Safety Division

The Elevator Safety Division recently finalized the process to update the elevator rules to the most current safety standards. The Code Committee has reviewed all current Michigan rules and standards, which the Elevator Safety Division uses to regulate elevating devices in the state. The rules take effect December 12, 2005. [Visit the bureau web site at: www.michigan.gov/bccfs](http://www.michigan.gov/bccfs) for more information.

The new Michigan Elevator Rules will adopt the following standards with certain amendments, deletions and additions:

American Society of Mechanical Engineers, Safety Code for Elevators and Escalators, **ASME A17.1-2004.**

American Society of Mechanical Engineers, Safety Standards for Platform Lifts and Stairway Chairlifts **ASME A18.1-2003.**

American Society of Mechanical Engineers, Safety Standard for Belt Manlifts, **ASME A90.1-2003.**

American National Standard, Safety Requirements for Personnel Hoists and Employee Elevators for Construction and Demolition Operations, **ANSI A10.4-2004.**

A copy of these standards are available from the American Society of Mechanical Engineers by calling (800) 843-2763 or Global Engineering by calling (877) 413-5184. Be sure to be specific in identifying the desired standards.

Questions may be directed to the Elevator Safety Division at (517) 241-9337.

FORMS AND APPLICATIONS

The Elevator Safety Division is in the process of updating all forms and applications. The changes being made are required by the adoption of the new code edition. Most of the forms and applications will be available to download from the bureau web site at www.michigan.gov/bccfs; however, the forms cannot be submitted electronically. Forms can be filled out on line then printed and mailed to the bureau. Instructions necessary to complete the forms or applications will be available with each specific form or application and are scheduled to correspond with the effective date.

The Bulletin is a quarterly publication of the Bureau of Construction Codes and Fire Safety within the Department of Labor and Economic Growth.

Editor in Chief:

Henry L. Green

Editor:

Beth Hunter Aben

*Created under the authority of
1972 PA 230.*

FIRE FIGHTERS' TRAINING COUNCIL

HURRICANE KATRINA

**By Joseph A. Grutza, Director
Office of Fire Fighter Training**

At the time this article was being written, the rescue efforts for those affected by Hurricane Katrina were well underway. As you would expect, when the call went out for assistance from the fire service, the response was tremendous. The Federal Emergency Management Agency's (FEMA) confidence in the fire service to adapt and complete the jobs we were trained for says volumes about the respect they have for fire fighters.

OFFT TRAINING UPDATES

**By Joseph A. Grutza, Director
Office of Fire Fighter Training**

The Office of Fire Fighter Training added two new comprehensive and interactive web-based courses from FEMA.

The first course is the "IS-700 National Incident Management System: An Introduction." This independent study course explains the purpose, principles, key components, and benefits of NIMS. Fire fighters can access the program by accessing the following web site: <http://training.fema.gov/EMIWeb/IS/is700.asp>. Please read the instructions and complete the training. After reading the course information, take the on line test. Results are then e-mailed. Upon successful completion, FEMA will mail a certificate within eight weeks. Please submit a copy of the certificate to the Office of Fire Fighter Training, P.O. Box 30700, Lansing, MI 48909. This information will be added to your electronic course records.

The second course is the "IS-800 The National Response Plan: An Introduction." This is a comprehensive, interactive web-based introduction to the new federal protocol for responding to incidents of national significance. Fire fighters can access the program by accessing the following web site: <http://training.fema.gov/EMIWeb/IS/is800.asp>. Please read the instructions and complete the training. After reading the course information, take the on line test. Results will be e-mailed. Upon successful completion, FEMA will mail a certificate within eight weeks. Please submit a copy of the certificate to the Office of Fire Fighter Training, P.O. Box 30700, Lansing, MI 48909. This information will be added to your electronic course records.

Questions may be directed to the Office of Fire Fighter Training at (517) 373-7981.

BCC&FS CONTACT INFORMATION

Telephone Numbers:

Administration (517) 241-9302
Office of Administrative Services (517) 335-2972
Office of Management Services (517) 241-9313
Boiler Division (517) 241-9334
Building Division (517) 241-9317
Electrical Division (517) 241-9320
Elevator Safety Division (517) 241-9337
Office of Fire Fighter Training (517) 373-7981
Mechanical Division (517) 241-9325
Office of Local Government & Consumer Services (517) 241-9347
Office of Land Survey & Remonumentation (517) 241-6321
Office of the State Fire Marshal (517) 241-8847
Plan Review Division (517) 241-9328
Plumbing Division (517) 241-9330

NEW TRAINING

The OFFT continues to add additional training courses to its web site at: www.michigan.gov/bccfs, click on State Fire Marshal, then click on Office of Fire Fighter Training. Check this site often for daily updates of scheduled courses throughout the state.

Questions may be directed to the Office of Fire Fighter Training at (517) 373-7981.

MFFTC

The Michigan Fire Fighter Training Council (MFFTC) continues to meet bi-monthly to address fire training throughout the state. At the August meeting, the council approved a new 'Company Officer' course developed by Thompson/Delmar along with a selection of prerequisites for course participation.

The next council meeting is scheduled for December 14 in Okemos, 2501 Woodlake Circle, Conference Room 3, beginning at 10 am.

LAND SURVEY & REMONUMENTATION

STATE SURVEY AND REMONUMENTATION PROGRAM UPDATE

By Maynard Dyer, Director

Office of Land Survey and Remonumentation

Michigan counties are currently completing work on both the 2004 and 2005 work programs paid for by a grant under the state survey and remonumentation program. To date, all of Michigan's 83 counties have reported approximately 85,000 original government corner positions that were originally established between 1808 and 1854. These positions have been researched and marked across Michigan. Approximately 100,000 of the estimated 275,000 corners will be completed by the time each county has reported its work progress at the end of this year.

The survey and remonumentation program was established in 1991 as a county program funded by recording fees collected by each county register of deeds in the amount of \$2 per document. The \$2 fee is deposited quarterly in the state treasury in a restricted fund for grants to participating counties. Based on county projections, the funding generated by the recording fee would not be adequate to complete the survey work in the 20 years provided in the act. On March 31, 2003, the fee collected for survey and remonumentation at the county was increased to \$4 until 2013 when it will return to the original \$2 fee for the remainder of the grant program. This increase will provide adequate funding for most of the counties to complete their work within the 20 years from 1993, the first year survey and remonumentation grants were made.

The county work programs include compiling a complete documented history of each corner, field reconnaissance, field survey, peer group ratification of the corner position and finally installing a marker at the corner position and filing a permanent record of the corner at the county register of deeds' office.

The documented history of the corner begins with the original government survey. All survey documents that relate to a corner's position that can be identified are included. Most records are obtained from the county register of deeds and include county surveyor records, private surveys and land corner recordation certificates on file. Additionally, private survey records are included where accessible. Surveys made by government agencies such as the laying out of township, village and city roads, county road commission records, county drain commissioner's records, department of transportation (formerly the state highway department) records, Department of Natural Resources' records, etc. are acquired. Among other records that may be available are

the records of Army Corps of Engineers and the Civilian Conservation Corps. All available documents are required to be accessed and considered before a corner position can be determined.

Once all historical documentation regarding a corner position has been compiled, a thorough search of the vicinity of the corner must be made by the contract surveyor. Any evidence of a corner marker must be compared with the historical documentation to develop a line of evidence from today dating back to the original corner marker set by the original government surveyor when possible. Measurements to adjacent corners can also substantiate the position of the corner when compared to the measurements reported by prior surveyors and found in the historical survey documentation.

If no evidence of the corner position is found, the corner is reestablished using the Manual of Instructions for the Survey of the Public Lands of the United States prepared by the Bureau of Land Management (BLM) Technical Bulletin No. 6 or subsequent addition as specified in the [State Survey and Remonumentation Act \(1990 PA 345\)](#).

The contract surveyor considers the evidence found, during the field search and the field measurements, comparing them to the historical documentation or follows the procedure described in BLM Technical Bulletin No. 6 to identify the position of the subject corner. The results are presented to a group of the contract surveyor's peers to

deliberate the corner position based on the evidence and historical documentation to agree or disagree with the determination of the recommended corner position. Ratification of the corner position by the peer group at an open meeting means not less than three licensed professional surveyors not associated with each other, or with the contract surveyor, concluded the corner position has been determined correctly.

After ratification, the contract surveyor places a permanent marker at the corner position and files a permanent record at the county register of deeds. The record, called a land corner recordation certificate, describes the historical documentation, the evidence found and the method used to restore the corner as well as the physical description of the marker installed at the corner position.

Most corners that have been marked under the county work programs are in harmony with the surrounding properties. Some, however, are not. Property disputes between adjoining property owners have taken place since shortly after the U.S. government patented the land to the first settlers. Counties continue to uncover



Continued on next page.

LAND SURVEY & REMONUMENTATION

REMONUMENTATION PROGRAM UPDATE, CONT.

circumstances where the position of the original government corner differs significantly from the location the landowners previously thought. This is a very rare occurrence. Preliminary reviews indicate that a property dispute stemming from corners being mismarked by county remonumentation activities results in much less than 1% of the time and may be as little as 0.1% or 0.2%.

The discovery and reporting of a conflict between the position of the original government corner and the position thought to be the corner position does not, in itself, cause a property ownership dispute, nor does it take property from one owner and give it to another. The county remonumentation program verifies and marks the position of the original government survey corners but does not perform any surveys to define and mark property ownership. The actual location of the lines has not changed. What has changed, is the property awareness owners of the government corners. Property owners may fix the line between their properties by agreement. When this is not possible, the system provides an avenue for resolution through the county circuit court. This could be an action to dispute the corner position or an action to fix the property line between adjoiningers.

Unless the county remonumentation program incorrectly establishes the position of the original government corner, it has not caused the conflict but has only discovered and reported the existing condition. The sooner all government corners are marked and known the sooner land disputes, based upon speculation of where the corners are, will be eliminated.

Questions may be directed to the Office of Land Survey and Remonumentation at (517) 241-6321.

STATE HOLIDAYS OFFICES CLOSED:

Veterans' Day
November 11

Thanksgiving
November 24, 25

Christmas
December 23, 26

New Year
December 30 -
January 2

Martin Luther King Jr. Day
January 16

Presidents' Day
February 20

LOCAL GOVERNMENT & CONSUMER SERVICES

PLEASING A CUSTOMER COULD BE COSTLY

**By Scott Fisher, Director
Office of Local Government and Consumer Services**

The Office of Local Government and Consumer Services has initiated administrative action against 12 individuals or companies licensed by the bureau within the past 11 months. These actions included licensing sanctions ranging from probation to revocation, administrative fines and restitution, and in some cases re-testing.

Several of the licensees involved in these actions could have saved themselves a lot of trouble and money, if they had explained to their customers that the customer demands were in violation of the applicable construction code. They should have attempted to change the customer's mind, or walked away from the job.

In one incident, a contractor installed equipment in a single-family dwelling for approximately \$5,000. The installation was performed exactly the way the homeowner wanted it. However, the installation was made in a prohibited area, which resulted in a number of other code and licensing violations. Had the contractor convinced the homeowner to do something different or walked away from the job, he would have saved a reported \$40,000 in restitution, damages, court costs and legal fees and administrative fees.

If you have to break the law to please a customer, do not do it.

Questions may be directed to the Office of Local Government and Consumer Services at (517) 241-9347.

MANUFACTURED HOUSING DIVISION

MANUFACTURED HOUSING COMMISSION

By Kevin DeGroat
Office of Local Government and Consumer Services

The Manufactured Housing Commission placed licensing sanctions on a manufactured housing retailer and a manufactured home installer/servicer at its August 17, 2005, meeting. The commission issued penalties against a retailer for failing to apply for home titles, retain and make available business records, and properly close its operations.

The commission also revoked the license of an installer/servicer that failed to fulfill an installation and construction contract made with a manufactured homeowner. It also ordered this installer to

pay restitution to the complaining homeowner for expenses incurred to complete the abandoned project.

Both complaints were presented to the commission for final action after the licensees failed to respond or comply with previous orders.

Between October 1, 2004 and August 31, 2005, 15 administrative actions against manufactured housing businesses have been taken.

Questions may be directed to the Office of Local Government and Consumer Services at (517) 241-9347.

MANUFACTURED HOUSING'S FAQ'S NOW ON LINE

Manufactured Housing FAQ's are now posted on the bureau's web site. The FAQ's can be found by clicking on the "Divisions" link on the left hand side of the BCCFS home page, then by clicking on "Building Division," then scrolling down through related links to Manufactured Housing Frequently Asked Questions or by typing: http://www.michigan.gov/documents/dleg_bccfs_mfghsg_faq_131585_7.pdf into the Internet browser.

MECHANICAL DIVISION

INSTALLATION OF BUBBLE WRAP INSULATION

By Dave Adams, Assistant Chief
Mechanical Division

There have been several questions regarding the use of what is referred to in the field as "bubble wrap insulations" and its approved uses. There are a number of these products that meet the requirements of the 2003 Michigan Mechanical Code. Specifically, section 604.3 states:

Coverings and linings, including adhesives when used, shall have a flame spread index not more than 25 and a smoke-developed index not more than 50, when tested in accordance with ASTM E 84, using the specimen preparation and mounting procedures of ASTM E 2231. Duct coverings and linings shall not flame, glow, smolder, or smoke when tested in accordance with ASTM C 411 at the temperature to which they are exposed in service. The test temperature shall not fall below 250 degrees Fahrenheit (121 degrees Celsius).

However, section 604.7 of the 2003 Michigan Mechanical Code states:

External duct insulation and factory-insulated flexible duct shall be legibly printed or identified at intervals not greater than 36 inches (914 mm) with the name of the manufacturer, the thermal resistance R-value at the specified installed thickness and the flame spread and smoke-developed indexes of the composite materials. All duct

insulation product R-values shall be based on insulation only, excluding air films, vapor retarders or other duct components, and shall be based on tested C-values at 75 degrees Fahrenheit (24 degrees Celsius) mean temperature at the installed thickness, in accordance with recognized industry procedures. The installed thickness of duct insulation used to determine its R-values shall be determined as follows:

1. For duct board, duct liner and factory-made rigid ducts not normally subjected to compression, the nominal insulation thickness shall be used.
2. For duct wrap, the installed thickness shall be assumed to be 75 percent (25 percent compression) of nominal thickness.
3. For factory-made flexible air ducts, the installed thickness shall be determined by dividing the difference between the actual outside diameter and nominal inside diameter by two.

If the bubble wrap meets the requirements of section 604.3 in the 2003 Michigan Mechanical Code, it can be used. However, per section 604.7 of the 2003 Michigan Mechanical Code, the R-values are based on insulation only, excluding air films, vapor retarders or other duct components, not air spaces.

Questions may be directed to the Mechanical Division at (517)

MECHANICAL DIVISION

APPROVED PAINT SPRAY BOOTHS

By Dave Adams, Assistant Chief

Mechanical Division

It has come to the attention of the Mechanical Division that there may be paint spray booths coming into the United States from a Chinese manufacturer using materials that are not in compliance with code requirements. Please ensure, if a paint spray booth is to be installed, it is tested, listed and approved for use.

Questions may be directed to the Mechanical Division at (517) 241-9325.

MECHANICAL CONTRACTOR TRAINING

By Dave Adams, Assistant Chief

Mechanical Division

The mechanical contractor examinations are given to qualified candidates five times a year in March, June, August, September and December. The August examination is held in Escanaba, while the others are held in Lansing. All morning examinations start at 8 am and all afternoon examinations start at 1 pm promptly.

There are 15 license classifications: 1) hydronics, 2) HVAC, 3) ductwork, 4) refrigeration, 5) limited heating service, 6) unlimited heating service, 7) limited refrigeration & a/c service, 8) unlimited refrigeration & a/c service, 9) fire suppression, 10a) solar, 10b) solid fuel, 10c) lp tank & pipe, 10d) underground tank & pipe, 10e) gas piping and 10f) gas piping & venting.

The definitions for these classifications are found in the [Forbes Mechanical Contractors Act, 1984 PA 192](#) along with the qualifications. Examination materials may be obtained from the bureau's web site at www.michigan.gov/bccfs.

Questions may be directed to the Mechanical Division at (517) 241-9325.

LICENSE EXAMINATION SCHEDULE

Examination	Date	Location	Deadline
Boiler Installer and Repairer	Nov 30, Dec 1	Okemos	Nov 4
Boiler National Board	Dec 7, 8	Okemos	Nov 4
Electrical/Fire Alarm/Sign	Nov 22	Okemos	Oct 25
Electrician - Journeyman	Dec 12, 13, 14	Okemos	Nov 9
Electrician - Master	Dec 15	Okemos	Nov 15
Elevator - Cont./Cert. of Comp.	Nov 9	Okemos	Oct 19
Elevator Journeyman	Dec 13	Okemos	Nov 22
Mechanical Contractor	Dec 7	Lansing	Nov 4
Plumbers - Contractor	Dec 21	East Lansing	
Plumbers - Master and Journey	Dec 14	East Lansing	

Dates and times are subject to change. Visit the [BCCFS web site for updates](#).

SCHEDULED BOARD MEETINGS

Meeting	Date	Time	Location
Barrier Free Design Board	Nov 4	9:30 am	Okemos – Conf Room 3
Board of Boiler Rules	Dec 12	9:30 am	Okemos – Conf Room 3
Construction Code Commission	Nov 2	9:30 am	Okemos – Conf Room 3
Electrical Administrative Board	Dec 2, Feb 3	9:30 am	Okemos – Conf Room 3
Elevator Safety Board	Nov 9, Jan 27	9:30 am	Okemos – Conf Room 3
Fire Fighters' Training Council	Dec 14	10:00 am	Okemos – Conf Room 3
Manufactured Housing Commission	Dec 7	10:00 am	Okemos – Conf Room 3
Board of Mechanical Rules	Nov 16	9:00 am	Okemos – Conf Room 3
State Fire Safety Board	Nov 17	1:00 pm	Okemos – Suite 116
State Plumbing Board	Dec 13, Jan 17	10:00 am	Okemos – Conf Room 1

PLAN REVIEW DIVISION

SUBMITTING SITE PLANS FOR PUBLIC SCHOOL PROJECTS

By **Todd Cordill, NCARB, Assistant Chief**
Plan Review Division

Requirements for the submittal of site plans and specifications for public school projects (including charter schools) have been the subject of recent inquiries. The projects that are the subject of these inquiries are site plans reviewed for compliance with the Michigan Department of Education site planning criteria. There are various design professionals that are allowed to prepare site drawings and specifications for review by the bureau. These occupations include professional surveyors, professional engineers, architects, and landscape architects.

[1980 PA 299, The Occupational Code](#), is the statute that regulates the practices of architecture, professional engineering, landscape architecture, and land surveying. Article 20 of the statute contains the requirements for how architects, professional engineers, and professional surveyors shall affix their seal to and sign documents for review by a governmental entity. Article 23 of the same statute contains like requirements for landscape architects. The governmental unit reviewing the subject site plan documents is the Bureau of Construction Codes and Fire Safety on behalf of the Michigan Department of Education.

Private school projects are not subject to this review. Such projects are subject to review by the local unit of government. Listed below are the occupations and the types of projects that can be submitted by each respective occupation for public school site plan review. Please note that this may not be the rule for each individual case; however, it is intended to be a rule of thumb or guideline.

Projects involving new buildings, building additions, retaining walls, fences (above six feet in height), new miscellaneous structures, new

construction or alterations of roads and parking lots all must have the construction documents prepared by an architect or professional engineer. Any local requirements for built infrastructure such as storm drainage and sanitary sewage would also need to be addressed by such documents.

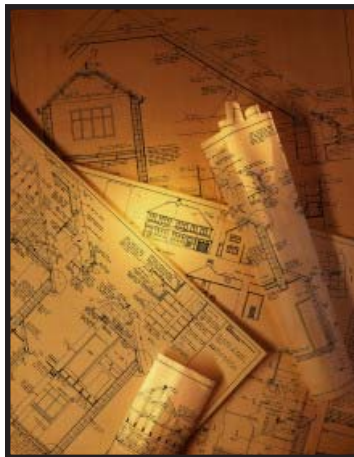
Submittals that document existing site conditions (not involving any proposed changes) can be prepared by a professional surveyor. These can be submitted for proposed schools, which will be located at an existing building or site. For example, if a school plans to move into a facility, that was never a school building (with no proposed changes).

For projects that involve landscaping, walking or bicycle pathways, athletic fields (excluding structures), natural drainage, approaches to buildings and structures, the documents may be submitted by a landscape architect.

The Occupational Code has an exception for public works projects that have a completed construction value of less than \$15,000. This exception is under Article 20 and pertains to construction of a public work involving architecture or professional engineering. A project at a public school is a public works project. If the value of the work is less than that amount, then the seal and signature of an architect or professional engineer need not be present on drawings and specifications submitted for review. However, this exception does not waive the requirement for such projects to be reviewed.

Although the listed project types are not all inclusive, this should answer some questions regarding the submittal process for drawings and specifications for site plan review.

Questions may be directed to the Plan Review Division at (517) 241-9328.



F Y I
THE BUREAU OF CONSTRUCTION
CODES AND FIRE SAFETY'S ANNUAL
TRAINING IS SCHEDULED FOR
MARCH 7-9, 2006.

PLUMBING DIVISION

APPRENTICE REGISTRATION DEADLINES/PHASE-IN SCHEDULE

**By Robert Konyndyk, Chief
Plumbing Division**

The State Plumbing Board at its July 20, 2005 board meeting requested the Plumbing Division notify all licensees, through the bureau's Bulletin, of apprentice registration deadlines concerning journey examination applications. The department has previously informed all licensees of the apprenticeship requirements through direct license mailings, the Bulletin, and through code update classes.

The [State Plumbing Act, 2002 PA 733](#) became effective March 31, 2003 and requires that apprentices register with the state of Michigan in order to assist in plumbing work. Further, section 27 requires registration within 30 days of employment as well as annual renewal. Section 25 requires that an apprentice applying for the journey examination shall have at least three years of practical installation under the supervision of a master plumber. Following enactment of the statute, examinations have not been open to applicants who failed to register with the state.

Additionally, in order to assist the plumbing industry to achieve full compliance with the statutory requirement of three years registration for prospective test applicants, the department is implementing the following three-year phase-in schedule:

1. Prospective test applicants who have not yet achieved three years experience under supervision of a master plumber must be registered with the state no later than November 1, 2005 in order to be allowed to take the journey plumber examination in future years.
2. Prospective test applicants in addition to meeting all other experience requirements for examination must demonstrate a minimum of one year state apprentice registration beginning November 1, 2006 and a minimum of two years state apprentice registration beginning November 1, 2007.
3. Finally, following November 1, 2008, an applicant for journey plumber examination shall demonstrate three years of state apprentice registration and have 6,000 hours experience gained in the practical installation of plumbing under the supervision of a master plumber.

The penalty for failure to comply with the state plumbing registration requirements will be denial to take the journey plumber examination.

Questions may be directed to the Plumbing Division at (517) 241-9330.

OFFICE OF THE STATE FIRE MARSHAL

THE IMPORTANCE OF FIRE REPORTING

**By Andy Neumann
State Fire Marshal**

The Michigan fire service has 1030 active departments with only 54% of the departments reporting in 2004, making it one of the worst reporting years ever for Michigan fire departments. This is down from 66% in 2003 and 62% in 2002. It is very much appreciated the time and care given by company officers in completing their reports and office administrators in compiling and submitting the data.

The Fire Incident Reports collected in Michigan are then transferred to the National Fire Incident Reporting System (NFIRS). NFIRS uses Michigan data for the U.S. Fire Administration's annual publication "Fire in The United States," the most comprehensive reference on the nature and scope of the fire problem in the United States. Fire reporting plays a major role in reducing injuries, fatalities

and economic losses from fire and related emergencies. Fire codes, public education and legislative actions are all driven by fire loss statistics. Complete and accurate data is essential to effective solutions to many of our fire problems. In addition, reporting ensures Michigan fire departments continue to qualify for United States Fire Administration Assistance to Fire Fighter grants. During 2004, more than \$21 million was awarded to 292 Michigan fire departments.

Rhonda Howard, NFIRS Program Coordinator for Michigan, is working to ensure that all departments submit reports. Howard recently held, through the National Fire Information Council, an 'Introduction to NFIRS' training class to aid Michigan fire departments in understanding the necessity for submitting complete, accurate and quality data. Howard is looking into scheduling another class. She may be reached for questions or comments at (517) 241-0691 or by e-mailing her at rkhowar@michigan.gov.

MI FIRE INSPECTORS FALL CONFERENCE

**By Tony Sanfilippo
Deputy Director**

Over 230 professionals who serve in the fire inspector service in the state attended the Fire Inspectors Fall Conference in September. There were many informative seminars and ample time for networking among those in the fire inspection services.

The Fire Inspectors Society and planning committees strive to always obtain the best speakers and programs for its conferences. All members are encouraged to become engaged with this society's planning committee and explore new program ideas and initiatives to continue benefiting from the outstanding educational opportunities.

OFFICE OF THE STATE FIRE MARSHAL

WORKING ON TOMORROW'S FIRE SAFETY

By Andy Neumann

State Fire Marshal

For the past several months, the Office of the State Fire Marshal (OSFM) has been working on safety issues for fuel cell cars of the future. The new fuel cell cars are powered by hydrogen, the most abundant element in the universe, and they are pollution- and noise-free.

A fuel cell is an electrochemical device where electricity is produced by chemical reactions. The reactants - hydrogen and oxygen - are supplied continuously. Fuel cells are often likened to batteries that never run down. In 1839, Sir William Robert Grove, a Welsh judge, inventor and physicist, conceived the first fuel cell. He mixed hydrogen and oxygen in the presence of an electrolyte, and produced electricity and water. The invention, which later became known as a fuel cell, did not produce enough electricity to be considered useful.

When NASA was working on the Apollo space program, it needed a light and reliable power supply on board the space capsule so they took up the development of fuel cells. On Apollo's journey to the moon, the energy supply was based on hydrogen fuel cells, and the "waste product" - water - was drunk by the crew. Today, fuel cells are common in space flight and after the successful journey to the moon, extensive research began in order to develop fuel cells for use in vehicles. Today all nine leading car manufacturers in the world have or will have operating fuel cell prototypes soon, and several billions of dollars is spent annually on development. Daimler Chrysler, General Motors and Ford will deliver mass-produced fuel cell cars in 2010 or before.

Fuel cells are superior to internal combustion engines with regard to operational safety, energy-effectiveness and the environment. One will surely see more effective internal combustion engines competing with fuel cells in the future, but fuel cells will out-compete the internal combustion engine. When a fuel cell car stops, as common with an electric car, it uses no energy, and even at low speed, it has high performance. A car with an internal combustion engine performs best at 50 to 55 mph, while it is extremely inefficient

at low speeds. On average, a medium-sized car with an internal combustion engine has a fuel efficiency of 12%. A typical hydrogen fuel cell car easily has a system efficiency over 50%, even at low speed.

The US Department of Transportation (USDOT) has asked the National Association of State Fire Marshals (NASFM) to play a key role in facilitating the safest possible transition from fossil to hydrogen fuels in automobiles. The OSFM is working with NASFM, the USDOT, NextEnergy, and the International Code Council. Together the team will examine the transportation of hydrogen, the location of fueling stations, emergency response, necessary amendments to the building codes, and of course, the design and on-going maintenance of hydrogen fuel cell-powered automobiles. The auto and energy industries are already at the table, along with regulators, scientists, consumer advocates and other stakeholders from North America and Europe.

The OSMF is committed to resolving many of the safety issues now so they do not become barriers as industry moves forward to commercialize these important technologies - a phase likely to begin within the next decade. Currently, "Hydrogen Highways" are being planned in several states to demonstrate the new automobiles and recently, legislation has been introduced here to include Michigan.

Recently, the office participated in the Hydrogen Executive Leadership Panel (HELP) First Annual Safety Summit in Detroit. The summit was held in cooperation with Governor Granholm, US DOT, NASFM, and NextEnergy. Key discussions were held on fire fighter safety training and how

hydrogen fuel cells pose different, but not necessarily worse, risks to fire fighters at the scene of an incident. Over the next few months, HELP hopes to have a standardized fire fighter safety curriculum related to hydrogen incidents available that each state can use, because Michigan fire fighters responded to 4,949 auto fires in 2004.

This effort is just another example of the office's work toward future fire safety and its proactive approach to make sure Michigan fire fighters, and its residents, continue to be safe.

